

Comparisons of Job Characteristics

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Mechanical	6.8	17.0	20.1	>	Current knowledge level is likely sufficient
Building and Construction	4.0	16.6	12.5	<<	Extensive education and/or training may be required
Design	5.2	11.2	10.3	0	Current knowledge level may be sufficient
Mathematics	9.2	11.0	12.3	>	Current knowledge level is likely sufficient
Physics	4.3	9.6	11.4	>	Current knowledge level is likely sufficient
Engineering and Technology	5.7	9.1	11.1	>	Current knowledge level is likely sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 57

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)

Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating		Evaluation of Focus Occupation
Operation and Control	5.4	8.7	10.9	>	Skill level is likely sufficient
Quality Control Analysis	5.9	8.7	11.2	>	Skill level is likely sufficient
Repairing	3.4	8.4	13.5	>>	Skill level is likely more than sufficient
Troubleshooting	4.5	8.4	13.3	>>	Skill level is likely more than sufficient
Equipment Maintenance	3.5	7.5	12.3	>>	Skill level is likely more than sufficient
Equipment Selection	3.3	6.0	9.4	>>	Skill level is likely more than sufficient
Installation	1.7	5.5	12.6	>>	Skill level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 90			
Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Arm-Hand Steadiness	6.8	11.8	10.8	0	Current ability level may be sufficient
Extent Flexibility	4.8	11.5	11.8	0	Current ability level may be sufficient
Visualization	7.5	11.2	12.4	>	Current ability level is likely sufficient
Finger Dexterity	7.6	11.1	10.7	0	Current ability level may be sufficient
Multilimb Coordination	6.0	11.1	9.5	<	Some improvement in abilities may be required
Gross Body Equilibrium	3.2	8.0	7.1	<	Some improvement in abilities may be required
Gross Body Coordination	3.9	7.4	7.4	0	Current ability level may be sufficient
Speed of Limb Movement	3.2	6.3	5.9	0	Current ability level may be sufficient
Spatial Orientation	2.7	5.8	5.5	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 91
Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021) Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Assemble and install pipe sections, fittings, or plumbing fixtures	71	
Braze metal parts or components together	85	
Cut, bend, or thread pipe for gas, air, hydraulic, or water lines	84	
Determine installation, service, or repair needed	58	
Determine material or tool requirements	72	
Determine project methods and procedures	76	
Direct and coordinate activities of workers or staff	3	
Estimate time or cost for installation, repair, or construction projects	54	
Fabricate, assemble, or disassemble manufactured products by hand	11	
Install or replace meters, regulators, or related measuring or control devices	66	
Maintain or repair work tools or equipment	81	
Maintain repair records	65	
Measure and mark reference points or cutting lines on workpieces	66	

Move or fit heavy objects	8
Pressure test piping system or equipment for leaks	89
Read blueprints	10
Read specifications	23
Read technical drawings	7
Repair or replace gas, steam, sewer, or water piping or fixtures	82
Repair or replace malfunctioning or worn mechanical components	62
Solder metal parts or components together	73
Use acetylene welding/cutting torch	54
Use arc welding equipment	62
Use basic plumbing techniques	72
Use braze-welding equipment	92
Use combination welding procedures	68
Use hand or power tools	2
Use oral or written communication techniques	1
Use pipe fitting equipment	80
Use pressure gauges	76
Use soldering equipment	44
Weld together metal parts, components, or structures	54

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 86

Focus Occupation: Heating, Air Conditioning, and Refrigeration Mechanics and Installers (49-9021)
Associated Occupation: Plumbers, Pipefitters, and Steamfitters (47-2152)

Tools and Technologies	Exclusivity
Aerial lifts	13
Bandsaws and accessories	26
Business function specific software	1
Cameras	2
Cleaning equipment	11
Compressors	9
Computer printers	2
Computers	1
Content authoring and editing software	1
Cutting and crimping and punching tools	3
Cutting tools	18
Data management and query software	1
Dispensing tools	6
Earth moving machinery	11
Electrical measuring and testing equipment	7
Face and head protection	7
Fall protection	16

Forming tools	2
Gas analyzers and monitors	10
Holding and clamping tools	3
Humidity and moisture measuring instruments	15
Indicating and recording instruments	2
Industry specific software	1
Information exchange software	1
Ladders and scaffolding	6
Length and thickness and distance measuring instruments	2
Lifting equipment and accessories	3
Machine tools	7
Marking tools	11
Measuring and layout tools	3
Metal bending and forming machinery	17
Metals and metallurgy and structural materials testing instruments	15
Network applications software	1
Non destructive examination equipment	13
Passenger motor vehicles	13
Personal communication devices	2
Power tools	2
Pressure measuring and control instruments	10
Prying and bending tools	10
Pumps	9
Rough and finishing tools	5
Sampling equipment	12
Soldering and brazing and welding machinery and supplies	6
Special tooling fixtures	16
Surveillance and detection equipment	11
Temperature and heat measuring instruments	6
Tool attachments and accessories	12
Transportation related equipment and instruments	29
Wrenches and drivers	2

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.